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AUSTRALIA

Attention: Wayne Nowlan

TE#14392 Stainless steel wire for security mesh

Coating stainless steel mesh

If a mesh is coated to provide the corrosion resistance, then the application of the coating must be carefully controlled to avoid cracking. It is also important to regularly wash the coating to avoid salts accumulating at the cross over crevices. Because the corrosion resistance is provided by the barrier coating, then from a corrosion point of view it does not matter if the wires are 304 or 316.

Strength of 304 vs 316.

Strength is obviously an important parameter in a security screen. 304 and 316 both work harden as they are drawn. 304 work hardens more than 316 for the same level of cold work. Hence it would be expected that at the same diameter and degree of cold work, a 304 wire will be stronger than 316.

If 316 wire is drawn to a greater extent to reach the same strength as 304, then it will have less ductility. Lower ductility is not desirable as the weaving process severely bends the wires at the cross-overs and may cause breakages.

Thickness of wires used in security meshes

If two wires have been drawn to the same strength, then the load capacity is determined by the diameter. As an example, if a strand of the 0.8mm diameter wire is used, it will have slightly less than 80% of the load capacity than if a 0.9mm diameter strand of wire was used.



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